

EXHIBIT A

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AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

Motiva Enterprises LLC
1100 Louisiana Street
Houston, TX 77002

is authorized to discharge from a facility located at

Motiva Enterprises LLC
Providence Terminal
520 Allens Avenue
Providence, RI 02905

to receiving waters named

Providence River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

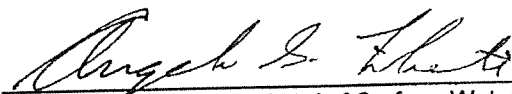
This permit shall become effective on April 1, 2011.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on February 8, 2005.

This permit consists of 20 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this 14th day of February, 2011.



Angelo S. Liberti, P.E., Chief of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

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PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A and 002A. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Concentration - specify units</u>		<u>Monitoring Requirement</u>	
	<u>Quantity - lbs./day</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type Estimate</u>
Flow			--- MGD				
Oil & Grease					15 mg/l	3/Month	Grab ¹
TSS					20 mg/l	3/Month	Grab ¹
Benzene					--- ug/l	1/Month	Grab ²
Toluene					--- ug/l	1/Month	Grab ²
Ethylbenzene					--- ug/l	1/Month	Grab ²
Total Xylenes					--- ug/l	1/Month	Grab ²
Methyl Tertiary Butyl Ether (MTBE)					--- ug/l	1/Month	Grab ^{2,3}
Ethanol					--- µg/l	1/Month	Grab ^{2,4}
Polynuclear Aromatic Hydrocarbons (PAHs)							
Acenaphthene					--- ug/l	Annually	Grab ²
Acenaphthylene					--- ug/l	Annually	Grab ²
Anthracene					--- ug/l	Annually	Grab ²
Benzo (a) anthracene					--- ug/l	Annually	Grab ²
Benzo (a) pyrene					--- ug/l	Annually	Grab ²
Benzo (b) fluoranthene					--- ug/l	Annually	Grab ²

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A and 002A. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations			Concentration - specify units		Monitoring Requirement	
	Quantity - lbs./day		Average Monthly	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
	Average Monthly	Maximum Daily					
Benzo (ghi) perylene					--- ug/l	Annually	Grab ²
Benzo (k) fluoranthene					--- ug/l	Annually	Grab ²
Chrysene					--- ug/l	Annually	Grab ²
Dibenzo (a,h) anthracene					--- ug/l	Annually	Grab ²
Fluoranthene					--- ug/l	Annually	Grab ²
Fluorene					--- ug/l	Annually	Grab ²
Indeno (1,2,3-cd) pyrene					--- ug/l	Annually	Grab ²
Naphthalene					--- ug/l	Annually	Grab ²
Phenanthrene					--- ug/l	Annually	Grab ²
Pyrene					--- ug/l	Annually	Grab ²
Sum of All PAHs					--- ug/l	Annually	Grab ²

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A and 002A. Such discharges shall be limited and monitored by the permittee as specified below:

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

¹Two (2) samples shall be taken during wet weather and one (1) during dry weather. Wet weather samples must be collected during the first 30 minutes from discharges resulting from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event. If this is not feasible, wet weather samples may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

²One sample shall be taken during the first 30 minutes of discharge from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event; if this is not feasible, it may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

³Beginning on the effective date of the permit, the permittee shall perform monthly testing for MTBE on samples collected from discharge outfalls 001A/002A. If the results of six (6) consecutive months of MTBE sampling for each outfall demonstrate values below the method detection limit for MTBE (as defined in Part I.D.), then the permittee may cease the required monitoring at the respective outfall.

⁴Ethanol shall be analyzed using EPA method 1671.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 001A (effluent from the oil/water separator treating storm water, groundwater, hydrostatic test water, and treated tank bottom draw-off water from the tank farm west of Allens Avenue) and 002A (effluent from the holding pond following treatment by an oil/water separator treating storm water from the loading rack area, additive tank containment area, and steel ring-wall containment for Tanks 2, 3, 5, 6, 7, and 8. Hydrostatic test water and a portion of the steel ring-wall containment for Tanks 2, 3, 5, 6, 7, and 8 are discharged directly to the holding pond.)

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this permit and lasting through expiration, the permittee is authorized to discharge from outfall serial number 100A fuel tank bottom water after treatment and prior to mixing with any other flow. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations			Monitoring Requirement	
	Average Monthly	Quantity - lbs./day Maximum Daily	Concentration - specify units Average Monthly Average Weekly Maximum Daily	Measurement Frequency	Sample Type
Flow	--- MGD	--- MGD		Continuous	Totalizer
Benzene		5.0 ug/l	5.0 ug/l	1/Discharge	Grab ¹
Toluene		12,000 ug/l	---	1/Discharge	Grab ¹
Ethylbenzene		1,680 ug/l	---	1/Discharge	Grab ¹
Total Xylenes		---	---	1/Discharge	Grab ¹
Total BTEX		100 ug/l	100 ug/l	1/Discharge	Grab ¹
MTBE		---	70 ug/l	1/Discharge	Grab ¹
Ethanol		---	---	1/Discharge	Grab ¹
Polynuclear Aromatic Hydrocarbons (PAHs)					
Benzo (a) anthracene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Benzo (a) pyrene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Benzo (b) fluoranthene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Benzo (k) fluoranthene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Chrysene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Dibenzo (a,h) anthracene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Indeno (1,2,3-cd) pyrene	0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this permit and lasting through expiration, the permittee is authorized to discharge from outfall serial number 100A fuel tank bottom water after treatment and prior to mixing with any other flow. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations			Monitoring Requirement	
	Quantity - lbs. per day	Concentration - specify units		Measurement Frequency	Sample Type
	Average Monthly	Average Monthly	Average Weekly	1/Discharge	Grab ¹
Acenaphthene		1.9 ug/l		1/Discharge	Grab ¹
Acenaphthylene		--- ug/l	--- ug/l	1/Discharge	Grab ¹
Anthracene		32,000 ug/l	--- ug/l	1/Discharge	Grab ¹
Benzo (ghi) perylene		--- ug/l	--- ug/l	1/Discharge	Grab ¹
Fluoranthene		112 ug/l	--- ug/l	1/Discharge	Grab ¹
Fluorene		4,240 ug/l	--- ug/l	1/Discharge	Grab ¹
Naphthalene		--- ug/l	20 ug/l	1/Discharge	Grab ¹
Phenanthrene		--- ug/l	--- ug/l	1/Discharge	Grab ¹
Pyrene		3,200 ug/l	--- ug/l	1/Discharge	Grab ¹
Sum of All PAHs		--- ug/l	--- ug/l	1/Discharge	Grab ¹
Total Petroleum Hydrocarbons (TPH)		--- mg/l	1.0 mg/l	1/Discharge	Grab ¹

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

¹Three (3) grab samples shall be taken at equally spaced time intervals over the duration of the discharge. These samples shall be composited prior to analysis.

²The limit at which compliance/noncompliance determinations will be based is the Quantitation Level (QL), which is defined as 0.05 ug/l for Benzo (a) Anthracene, 2 ug/l for Benzo (a) Pyrene, 0.1 ug/l for Benzo (b) Fluoranthene, 2 ug/l for Benzo (k) Fluoranthene, 5 ug/l for Chrysene, 0.1 ug/l for Dibenzo (a,h) Anthracene, and 0.15 ug/l for Indeno (1,2,3-cd) Pyrene. These values may be reduced by permit modification as more sensitive test methods are approved by EPA and the state.

Samples taken in compliance with the monitoring requirements specified shall be taken at Outfall 100A (fuel tank bottom water after treatment but prior to mixing with any other flow).

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date of this permit and lasting through expiration, the permittee is authorized to discharge from outfall serial number 003A. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Monitoring Requirement</u>	
	Quantity - lbs. per day Average Monthly	Concentration - specify units Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow				Semi-annually	Estimate
Oil & Grease			15 mg/l	Semi-annually	Grab ¹
TSS			20 mg/l	Semi-annually	Grab ¹

--- MGD

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

¹Grab sample to be taken during first 30 minutes of discharge from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event; if this is not feasible, it may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 003A (effluent from oil/water separator treating storm water from the paved parking area north of the maintenance garage).

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4.
 - a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at any time, unless these values are exceeded due to natural causes or as result of the approved treatment processes.
 - b. The discharge shall not cause visible discoloration of the receiving waters.
 - c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
 - d. In addition to the required sampling results submitted in accordance with Parts I.A.1. and I.A.3. of this permit, the permittee must provide the date and duration (hours) of the storm event sampled, the total depth of rainfall (inches), and the total volume of runoff (Ft³). This information must be submitted with the Discharge Monitoring Report forms at the frequency specified in Part I.E.2 of this permit.
 - e. If the permittee is unable to collect samples due to adverse climatic conditions which make the collections of samples dangerous or impractical, the permittee must submit, in lieu of sampling data, a description of why samples could not be collected, including available precipitation data for the monitoring period. The permittee can only exercise this waiver once in a two (2) year period for outfalls designated 001A, 002A, and 003A. A waiver is not required if there was no flow from the outfall for the reporting period. This information must be submitted with the Discharge Monitoring Report forms for the applicable reporting period.
 - f. The permittee shall not add chemicals (i.e., disinfecting agents, detergents, emulsifiers, etc.) or "bioremedial agents including microbes" to the collection and treatment system without prior approval from DEM.
 - g. The permittee shall not discharge any sludge and/or bottom deposits from any storage tank, basin and/or diked area to the receiving water. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, the oil/water separator, observation basins with baffles, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.
5. There shall be no direct discharge to the oil/water separators or holding ponds of untreated marine transportation water (water which separates and/or accumulates during marine transportation), tank truck wash water or wash water from the truck loading rack, vehicle or equipment washing activities, and ship barge/bilge water.
6. This permit does not authorize discharges to the separate storm sewer system or to waters of the State from floor drains and trench drains located inside of buildings and/or hangars.
7. The discharge of contaminated groundwater, including contaminated groundwater from infiltration/inflow, into the storm water collection system or into any oil/water separator is prohibited and shall be addressed by the permittee pursuant to Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases ("Remediation Regulations") under the direction of the Office of Waste Management, in association with the Office of Water Resources. Nothing in this paragraph shall be construed to relieve the permittee's obligation to investigate and/or remediate contaminated groundwater in compliance with the Remediation Regulations or the regulations of the Office of Water Resources.

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8. Unless identified by the permittee or the DEM as significant sources of pollutants to waters of the United States, the following non-storm water discharges are authorized under this permit to enter the storm water drainage system: discharges from fire fighting activities; fire hydrant flushings; external building washdown that do not use detergents; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; and foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials has occurred. If any of these discharges may reasonably be expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's Storm Water Pollution Prevention Plan (SWPPP) required in Part I.C.
9. There shall be no discharge of untreated tank bottom draw-off water (water which separates from product during storage and settles to the tank bottom). All tank bottom draw-off water shall be treated through the carbon absorption system detailed in Star Enterprise's September 19, 1997 submittal on the treatment of gasoline and fuel oil tank water bottoms. The flow through the two-vessel, 4000 lb. granular activated carbon system shall be measured via a digital flowmeter and totalizer. A logbook shall be kept to document the start and end of each discharge and the total flow discharged through the system. The following conditions apply to the carbon absorption system mentioned above:
 - a. The permittee shall properly operate and maintain the carbon absorption system. Mechanical failure or breakthrough of the treatment system (exceedance of any permit limits) shall be immediately reported to the Office of Water Resources.
 - b. The system shall not be modified without written approval from the Office of Water Resources.
 - c. The treatment system shall be inspected at a minimum of once per discharge to assure the system is operating efficiently and to look for evidence of iron bacteria build-up. As a result of these inspections, appropriate actions shall be taken immediately to resolve any problems discovered during the inspection (i.e., removal of iron scale). Records documenting the inspections and any actions taken shall be retained and made available to the Office of Water Resources upon request.
 - d. Discharge shall cease and DEM shall be notified if any of the limits listed in Part I.A.2. are exceeded. The discharge may recommence once steps have been taken to ensure the limits will not be exceeded again and after DEM approval. At a minimum, these steps shall include replacement of the activated carbon filter.
10. The permittee shall notify the Office of Water Resources at least twenty-four (24) hours prior to the commencement of any proposed hydrostatic-test water discharges. Prior to testing, the interior of the tank(s) and/or piping being tested shall be cleaned and certified to be free of petroleum product. There shall be no discharge of tank and/or pipe cleaning residual/debris to either of the oil/water separators or holding ponds. At a minimum, four (4) representative samples shall be taken of the hydrostatic-test water: one (1) grab sample of the influent and three (3) serial-grab samples of the effluent, which after treatment through the oil water separator is discharged to the receiving waters. The influent grab sample shall be taken approximately midway through the fill segment of the hydrostatic-test procedure. The three (3) effluent serial-grab samples shall be taken over the duration of the entire discharge segment of the hydrostatic-test procedure. The first serial-grab sample shall be taken during the initial phase of the discharge; the second serial grab sample is to be taken midway through the discharge; and the final sample shall be taken at the end of the discharge. All effluent samples should be taken directly

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from the effluent of the tank prior to discharge into the oil/water separator or holding pond and/or mixing with any other authorized waste streams. These samples should provide adequate characterization of the influent and effluent hydrostatic-test water.

These influent and effluent samples shall be analyzed for the following parameters:

- | | | | |
|----|------------------------------|----|--|
| a. | Total Suspended Solids (TSS) | d. | Chemical Oxygen Demand (COD) |
| b. | Oil & Grease (O/G) | e. | Dissolved Oxygen (DO) |
| c. | Total Iron | f. | pH |
| | | g. | Polynuclear Aromatic Hydrocarbons (PAHs) |

The hydrostatic test water released from the tank(s), after treatment through the oil/water separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the oil/water separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water(s). A logbook shall be kept to document the start and end of each hydrostatic test, the total flow discharged and all monitoring data.

Should any visual inspection or suspicious odor indicate the presence of petroleum while inspecting the oil/water separator as required above or if laboratory results from the representative samples of the discharge become available that may indicate an exceedance of the permit effluent limits, the transfer shall be halted immediately followed by notification to the RI DEM of the suspended discharge. After the discharge of the hydrostatic test water has been completed, the permittee shall submit a letter/report to the RI DEM within thirty (30) days, summarizing the results of the transfer. This report shall contain: the date(s) of hydrostatic test water transfer; the volume of hydrostatic test water transferred; and the analytically determined values of the discharge parameters.

11. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 ug/l);

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- (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.
12. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. OPERATION AND MAINTENANCE

1. All surface runoff from process or work areas at the facility shall be contained and diverted to the final treatment system. Final treatment shall consist of a permanent structural control as indicated in Attachment A-3 of the Statement of Basis. Process or work areas are defined for the purpose of this permit as all those areas subject to spills and leaks of raw materials or products containing toxic or hazardous substances, (i.e., diked areas, docks, loading or unloading areas, yard areas, etc.).
2. The release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewater's does not exceed the optimum design flow rates for the oil water separators or cause violations of the effluent limitations specified in this permit. The design flow rates for the oil/water separators servicing outfalls 001A, 002A and 003A are: 1.2 MGD, 0.23 MGD and 0.006 MGD, respectively.
3. Storm water accumulated in holding basins or tank dike areas shall be inspected to verify that it is free of product or sheen prior to draining to any other storm water handling system at the terminal. Tank dike areas shall be drained as necessary to provide adequate secondary containment in the event of a release from a tank. If a sheen is detected the area will be covered with oil absorbent blankets to collect petroleum product. After the sheen has been absorbed and the absorbent blankets have been removed, the draining process will begin. If the amount of petroleum product is such that professional clean-up action is required then all the liquid from that containment area shall be removed and disposed of properly off site.
4. The wastewater collection and treatment system shall be operated and maintained in order to provide optimal treatment of the wastewaters prior to discharge to the receiving water.
5. The SWPPP in Part I.C. shall specifically address the adequacy of containment of leaks and spills in storage areas (from Drums, Additive Tanks, Petroleum Product Tanks, etc.) and truck loading area(s). Adequate containment must exist at these locations so as to prevent untreated discharges from reaching any surface water.
6. A schedule for routinely inspecting and cleaning the oil/water separators for both sludge layer and oil layer shall be specified in the SWPPP. The permittee shall use the same inspection frequency for the holding ponds as is specified for the oil/water separators with cleaning being performed as necessary. In addition, the SWPPP shall identify procedures for insuring compliance with the permit during such cleaning or maintenance periods.

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7. The permittee shall assure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1978 (40 U.S.C. 6901 et seq.), or amendments thereto.

C. STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. A Storm Water Pollution Prevention Plan (SWPPP) shall be maintained and implemented by the permittee. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the SWPPP shall describe and ensure the implementation of Best Management Practices (BMPs) which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. This SWPPP shall be consistent with the EPA guidance entitled "Storm Water Management for Industrial Activities – Developing Pollution Prevention Plans and Best Management Practices", 1992 (EPA 832-R-92-006).
2. The SWPPP shall be signed by the permittee in accordance with RIPDES Rule 12 and retained on-site. The Plan shall be made available upon request by the DEM.
3. If the SWPPP is reviewed by the DEM the permittee may be notified at any time that the SWPPP does not meet one or more of the minimum requirements of this part. After such notification from the DEM, the permittee shall make changes to the SWPPP and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the DEM, the permittee shall have thirty (30) days after such notification to make the necessary changes.
4. The permittee shall immediately amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect of the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Changes must be noted and then submitted to DEM. Amendments to the SWPPP may be reviewed by DEM in the same manner as Part I.C.3. of this permit.
5. The SWPPP shall include, at a minimum, the following items:
 - a. Description of Potential Pollutant Sources. The SWPPP must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources. The plan shall include:
 - (1) A site map indicating: a delineation of the drainage area of each storm water outfall, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to storm water, locations where significant leaks or spills have occurred, a delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: fueling stations, vehicle and equipment maintenance and/or cleaning areas, material handling areas, material storage areas, process areas, and waste disposal areas;
 - (2) A topographic map extending one-quarter of a mile beyond the property

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boundaries of the facility;

- (3) An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting;
- (4) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water between the time of three (3) years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff between the time of three (3) years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;
- (5) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility three (3) years prior to the effective date of this permit to the present;
- (6) A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on a RIPDES permit to discharge process water, and any information required under RIPDES Rule 11.02(a)(14)(iii)-(v) or 40 CFR 122.21(g)(iii)-(v);
- (7) For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in storm water associated with industrial activity;
- (8) A summary of existing sampling data describing pollutants in storm water discharges from the facility; and

b. Storm Water Management Controls. The permittee must develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness for implementing controls listed in the SWPPP must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:

- (1) *Pollution Prevention Team.* The SWPPP must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the SWPPP and assisting the plant manager in its implementation, maintenance, and revision. The SWPPP must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's SWPPP.
- (2) *Risk Identification and Assessment/Material Inventory.* The SWPPP must assess the potential of various sources which contribute pollutants to storm water discharge associated with the industrial activity. The SWPPP must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used,

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produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants.

- (3) *Preventative Maintenance.* A preventative maintenance program must involve inspection and maintenance of storm water management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.
- (4) *Good Housekeeping.* Good housekeeping requires the maintenance of a clean, orderly facility. If applicable, the following areas must be specifically addressed:
 - i. Vehicle and Equipment Storage Areas: The storage of vehicles and equipment with actual or potential fluid leaks must be confined to designated areas (delineated on the site map). The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from these areas. The facility shall consider the use of drip pans under vehicles and equipment, indoor storage of the vehicles and equipment, installation of berming and diking of this area, use of absorbents, roofing or covering storage areas, cleaning pavement surface to remove oil and grease, or other equivalent methods.
 - ii. Truck Loading Racks: The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from fuel loading areas. The facility shall consider berming the loading rack area(s), using spill and overflow protection and cleanup equipment, minimizing run-on/runoff of storm water to the loading rack area(s) by way of storm water drains, using dry cleanup methods, collecting the storm water runoff and providing treatment or recycling, or other equivalent measures.
 - iii. Material Storage Areas: Storage units of all materials (e.g., used oil, used oil filters, spent solvents, paint wastes, radiator fluids, transmission fluids, hydraulic fluids) must be maintained in good condition, so as to prevent contamination of storm water, and plainly labeled (e.g., "used oil", "spent solvents", etc.). The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from such storage areas. The facility shall consider indoor storage of the materials, installation of berming and diking of the area, minimizing run-on/runoff of storm water to the areas, using dry cleanup methods, collecting the storm water runoff and providing treatment, or other equivalent methods.
 - iv. Vehicle and Equipment Cleaning Areas: The SWPPP must describe measures that prevent the discharge of vehicle and equipment wash waters, including tank cleaning operations. The facility shall consider performing all cleaning operations indoors, covering the cleaning operation, ensuring that all washwaters drain to the intended collection system, collecting the storm water runoff from the cleaning area and providing treatment or recycling, or other equivalent measures. These discharges are not authorized by this permit.

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- v. Vehicle and Equipment Maintenance Areas: The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for vehicle and equipment maintenance. The facility shall consider performing all maintenance activities indoors, using drip pans, maintaining an organized inventory of materials used in the shop, draining all parts of fluids prior to disposal, prohibiting wet cleanup practices where the practices would result in the discharge of pollutants to storm water drainage systems, using dry cleanup methods, collecting the storm water runoff from the maintenance area and providing treatment or recycling, minimizing runoff/runoff of storm water areas or other equivalent measures.
- (5) *Spill Prevention and Response Procedure*. Areas where potential spills can occur, and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the storm water drainage system must be eliminated wherever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the SWPPP and made available to the appropriate personnel. The necessary equipment to implement a clean up must also be made available to personnel. The permittee shall immediately notify the office of releases in excess of reportable quantities.
- (6) *Storm Water Management*. The SWPPP must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges associated with industrial activity (see Part C.5.b.2 of this permit), the SWPPP must provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.
- (7) *Sediment and Erosion Prevention*. The SWPPP must identify areas which; due to topography, activities, or other factors; have a high potential for significant soil erosion and identify measures to limit erosion.
- (8) *Employee Training*. Employee training programs must inform personnel responsible for implementing activities identified in the SWPPP, or otherwise responsible for storm water management at all levels, of the components and goals of the SWPPP. Training should address topics such as spill response, good housekeeping, and material management practices. The SWPPP must identify periodic dates for such training.
- (9) *Disposal Procedures*. The disposal procedures for tank bottom waters, tank bottom sludge, oil/water separator sediments, oil/water separator oils, oil absorbent cleaning material(s) and any washdown waters containing detergents, dispersants, emulsifiers, etc. must be documented in the SWPPP.
- (10) *Visual Inspections*. Qualified plant personnel must be identified to inspect designated equipment and plant areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records of inspections must be maintained on site for at least five (5) years.

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- (11) *Recordkeeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.
- c. Site Inspection. An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under Part I.C.5.a is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in storm water discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate. The following areas shall be included in all inspections: storage areas for vehicles and equipment awaiting maintenance, truck loading rack area(s), vehicle and equipment maintenance areas (both indoors and outdoors), material storage areas, vehicle and equipment cleaning areas, and loading and unloading areas. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. A copy of the annual site inspection report and records documenting significant observations made during the site inspection must be retained as part of the SWPPP for a minimum of five (5) years.
- d. Consistency with Other Plans. Storm water management controls may reflect requirements for Spill Prevention Control and Counter-measure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by a RIPDES permit and may incorporate any part of such plans into the SWPPP by reference.

D. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below (the EPA method is noted for reference, other EPA approved methods found in 40 CFR Part 136 may be utilized). All sludge testing required by this permit shall be in conformance with the method detection limits found in 40 CFR 503.8. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be submitted along with the monitoring reports.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;
2. results reported as less than the MDL shall be included as values equal to the MDL, and the average shall be reported as "less than" the calculated value.

For compliance purposes, DEM will replace all data reported as less than the MDL with zeroes, provided that DEM determines that all appropriate EPA approved methods were followed. If the re-calculated average exceeds the permit limitation it will be considered a violation.

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LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)	Pesticides - EPA Method 608		MDL ug/l (ppb)
1V	acrolein	10.0	18P	PCB-1242	0.289
2V	acrylonitrile	5.0	19P	PCB-1254	0.298
3V	benzene	1.0	20P	PCB-1221	0.723
5V	bromoform	1.0	21P	PCB-1232	0.387
6V	carbon tetrachloride	1.0	22P	PCB-1248	0.283
7V	chlorobenzene	1.0	23P	PCB-1260	0.222
8V	chlorodibromomethane	1.0	24P	PCB-1016	0.494
9V	chloroethane	1.0	25P	toxaphene	1.670
10V	2-chloroethylvinyl ether	5.0			
11V	chloroform	1.0	Base/Neutral - EPA Method 625		MDL ug/l (ppb)
12V	dichlorobromomethane	1.0	1B	acenaphthene *	1.0
14V	1,1-dichloroethane	1.0	2B	acenaphthylene *	1.0
15V	1,2-dichloroethane	1.0	3B	anthracene *	1.0
16V	1,1-dichloroethylene	1.0	4B	benzidine	4.0
17V	1,2-dichloropropane	1.0	5B	benzo(a)anthracene *	0.013
18V	1,3-dichloropropylene	1.0	6B	benzo(a)pyrene *	0.023
19V	ethylbenzene	1.0	7B	3,4-benzofluoranthene *	0.018
20V	methyl bromide	1.0	8B	benzo(ghi)perylene *	2.0
21V	methyl chloride	1.0	9B	benzo(k)fluoranthene *	0.017
22V	methylene chloride	1.0	10B	bis(2-chloroethoxy)methane	2.0
23V	1,1,2,2-tetrachloroethane	1.0	11B	bis(2-chloroethyl)ether	1.0
24V	tetrachloroethylene	1.0	12B	bis(2-chloroisopropyl)ether	1.0
25V	toluene	1.0	13B	bis(2-ethylhexyl)phthalate	1.0
26V	1,2-trans-dichloroethylene	1.0	14B	4-bromophenyl phenyl ether	1.0
27V	1,1,1-trichloroethane	1.0	15B	butylbenzyl phthalate	1.0
28V	1,1,2-trichloroethane	1.0	16B	2-chloronaphthalene	1.0
29V	trichloroethylene	1.0	17B	4-chlorophenyl phenyl ether	1.0
31V	vinyl chloride	1.0	18B	chrysene *	0.15
Acid Compounds - EPA Method 625		MDL ug/l (ppb)	19B	dibenzo (a,h) anthracene *	0.03
1A	2-chlorophenol	1.0	20B	1,2-dichlorobenzene	1.0
2A	2,4-dichlorophenol	1.0	21B	1,3-dichlorobenzene	1.0
3A	2,4-dimethylphenol	1.0	22B	1,4-dichlorobenzene	1.0
4A	4,6-dinitro-o-cresol	1.0	23B	3,3'-dichlorobenzidine	2.0
5A	2,4-dinitrophenol	2.0	24B	diethyl phthalate	1.0
6A	2-nitrophenol	1.0	25B	dimethyl phthalate	1.0
7A	4-nitrophenol	1.0	26B	di-n-butyl phthalate	1.0
8A	p-chloro-m-cresol	2.0	27B	2,4-dinitrotoluene	2.0
9A	pentachlorophenol	1.0	28B	2,6-dinitrotoluene	2.0
10A	phenol	1.0	29B	di-n-octyl phthalate	1.0
11A	2,4,6-trichlorophenol	1.0	30B	1,2-diphenylhydrazine (as azobenzene)	1.0
Pesticides - EPA Method 608		MDL ug/l (ppb)	31B	fluoranthene *	1.0
1P	aldrin	0.059	32B	fluorene *	1.0
2P	alpha-BHC	0.058	33B	hexachlorobenzene	1.0
3P	beta-BHC	0.043	34B	hexachlorobutadiene	1.0
4P	gamma-BHC	0.048	35B	hexachlorocyclopentadiene	2.0
5P	delta-BHC	0.034	36B	hexachloroethane	1.0
6P	chlordane	0.211	37B	indeno (1,2,3-cd) pyrene *	0.043
7P	4,4'-DDT	0.251	38B	isophorone	1.0
8P	4,4'-DDE	0.049	39B	naphthalene *	1.0
9P	4,4'-DDD	0.139	40B	nitrobenzene	1.0
10P	dieldrin	0.082	41B	N-nitrosodimethylamine	1.0
11P	alpha-endosulfan	0.031	42B	N-nitrosodi-n-propylamine	1.0
12P	beta-endosulfan	0.036	43B	N-nitrosodiphenylamine	1.0
13P	endosulfan sulfate	0.109	44B	phenanthrene *	1.0
14P	endrin	0.050	45B	pyrene *	1.0
15P	endrin aldehyde	0.062	46B	1,2,4-trichlorobenzene	1.0
16P	heptachlor	0.029			
17P	heptachlor epoxide	0.040			

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OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent***	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
Total Xylenes	0.5
Ethanol	2.0 mg/l

* Polynuclear Aromatic Hydrocarbons

** No Rhode Island Department of Environmental Management (RIDEM) MDL

*** Not a priority pollutant as designated in the 1997 Water Quality Regulations (Table 5)

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

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E. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed reporting period. A copy of the analytical laboratory report, specifying analytical methods used, shall be included with each report submission. The first report is due on May 15, 2011. Signed copies of these, and all other reports required herein, shall be submitted to:

Electronic Computer Operator
Office of Water Resources
RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

PART II TABLE OF CONTENTS

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DEFINITIONS

GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

- (1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment of not more than 1 year, or both.
- (3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than \$5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than \$10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than \$5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- (1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;
- (3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

- (4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

- (1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.
- (2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
- (3) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.
- (5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than \$10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than \$5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.
- (6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
- (7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with Rule 12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

- (1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.
- (2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.
- (3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.
- (4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-3961, (401) 222-6519 or (401) 222-2284 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

- (i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or
- (ii) Any upset which causes a violation of any effluent limitation in the permit; or
- (iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

- (6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (1)(5) of the section.
- (7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information.

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

- (1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.
- (2) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
 - (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Rule 14.18 of the RIPDES Regulations.
- (3) Prohibition of bypass.
 - (i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (2) of this section.

- (ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

- (1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (a) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (b) The permitted facility was at the time being properly operated;
 - (c) The permittee submitted notice of the upset as required in Rule 14.18 of the RIPDES Regulations; and
 - (d) The permittee complied with any remedial measures required under Rule 14.05 of the RIPDES Regulations.
- (3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 *et seq.*, Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 291 Promenade Street, Providence, Rhode Island. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with Rules 15 and 23 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the public without further notice.

(2) Claims of confidentiality for the following information will be denied:

- (i) The name and address of any permit applicant or permittee;
- (ii) Permit applications, permits and any attachments thereto; and
- (iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of Rule 49 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.
2. The following abbreviations, when used, are defined below.

cu. M/day or M ³ /day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. °C	temperature in degrees Centigrade
Temp. °F	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH ₃ -N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO ₃ -N	nitrate nitrogen as nitrogen
NO ₂ -N	nitrite nitrogen as nitrogen
NO ₃ -NO ₂	combined nitrate and nitrite nitrogen as nitrogen
Cl ₂	total residual chlorine

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RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO
DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO.

RI0001481

NAME AND ADDRESS OF APPLICANT:

Motiva Enterprises LLC
100 Louisiana Street
Houston, TX 77002

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Motiva Enterprises LLC
Providence Terminal
520 Allens Avenue
Providence, RI 02905

RECEIVING WATER:

Providence River

CLASSIFICATION:

SB1{a}

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant has applied to the Rhode Island Department of Environmental Management for reissuance of a RIPDES Permit to discharge into the designated receiving water. The applicant's discharges consists of storm water runoff, groundwater, holding pond drainage, hydrostatic/hydraulic test water, and treated tank bottom draw-off water. The discharge is to the Providence River.

II. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements and any implementation schedule (if required) may be found in the draft permit.

III. Description of Discharge

Motiva Enterprises LLC, which operates the facility, is classified under the Petroleum and Petroleum Products industry group as a Standard Industrial Classification (SIC) 5171 for Petroleum Bulk Stations and Terminals. These facilities are establishments primarily engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities. The

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discharge is composed of storm water from the terminal site, parking lots, and containment or diked areas surrounding the storage tanks. Other non-storm water discharges include hydrostatic test water and treated tank bottom draw-off water (water that separates from the product during storage and settles to the bottom of the tanks). All storm water and hydrostatic test water is to be treated by an oil/water separator and all tank draw-off water is to be treated through the carbon adsorption system prior to discharge. A quantitative description of the discharges from the three outfalls in terms of significant effluent parameters based on Discharge Monitoring Report Data for the past five (5) years is shown in Attachment A-1.

IV. **Permit Basis and Explanation of Effluent Limitation Derivation**

General Requirements

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

When developing effluent limits for RIPDES Permits DEM is required to consider treatment technology and water quality requirements. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the CWA (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. EPA has not promulgated National Effluent Guidelines for storm water and groundwater discharges from bulk storage petroleum facilities. In the absence of technology based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA.

Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Rhode Island Water Quality Standards include a narrative statement that prohibits the discharge of any pollutant or combination of pollutants in quantities that would be toxic or injurious to aquatic life. In addition, the State has adopted EPA's numerical criteria for specific toxic pollutants and toxicity criteria as published in the EPA Quality Criteria for Water, 1986, (EPA 440/5-86-001) as amended.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (i), and 122.48 to yield data representative of the discharge.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Description of the Facility and Discharge(s)

Motiva Enterprises LLC operates the Providence Terminal located at 520 Allens Avenue, Providence, RI. There are twenty-five (25) refined petroleum product storage tanks at the site. Six (6) of these tanks are located east of Allens Avenue in the East Side Tank Farm and the remaining nineteen (19) are located west of Allens Avenue. Since the last permit reissuance, Motiva has eliminated MTBE as a gasoline additive and replaced it with ethanol. Six aboveground storage tanks (ASTs) have been converted for ethanol storage and a railcar yard was constructed to allow receipt of ethanol. All of the aboveground storage tanks for petroleum products are located within a tank dike area or have ring-wall containment. Drainage valves for the diked areas are kept closed and locked. Tank dike areas or ring-wall containment are drained at storms end

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and only after first determining that the drain water is free of product or sheen. If a sheen is detected the area will be covered with oil absorbent blankets to collect petroleum product. After the sheen has been absorbed and the absorbent blankets have been removed, the draining process will begin. If the amount of petroleum product is such that professional clean-up action is required then all the liquid from that containment area shall be removed and disposed of properly off-site.

As noted above, the Providence Terminal incorporated changes to begin handling, storing, and distributing ethanol and to increase the capabilities for storing and distributing gasoline. The terminal will process both neat ethanol (100%) and fuel ethanol (denatured with up to 5% gasoline by weight), and will receive and process off-spec gasoline, gasoline blending stock, and dimate (hexane) and blend these materials to produce saleable gasoline.

The ethanol railcar unloading facility consists of two parallel sidings, each with ten adjacent railcar unloading positions for a total of twenty unloading positions. Measures in place at the ethanol railcar unloading facility are as follows:

- Permanent steel drip pans between the rails and centered under the bottom unloading valve of each railcar with drainage to a collection sump;
- Secondary containment around the unloading area that includes an underlying impervious liner;
- Off loading pumps located on a concrete pad with curbing that allows inspection of storm water before release to the drainage system;
- Inspection of the collection sump, rail containment area, and off loading pump pad for any accumulated product or impacted storm water following unloading events;
- Collection and off-site treatment or disposal of impacted storm water;
- Un-impacted storm water will be drained to the dike area of Tank 7488, which will eventually flow to the storm water retention pond and oil/water separator for discharge through Outfall 001A.

The West Side Tank Farm is used to store #2 fuel oil, ethanol, and various grades of gasoline. Outfall 001A discharges storm water and groundwater from the tank farm and railcar yard west of Allen's Avenue. Groundwater infiltration from the high water table was included in a request for permit modification in July 1998. Storm water and groundwater that accumulates in the tank farm and railcar yard is collected through a series of drainage swales, pipes and pumps and is directed to a collection/retention pond in the tank farm. The tank farm drainage water is then pumped east under Allens Avenue through an 8" pipeline to an oil/water separator. Storm water and groundwater are treated in the oil/water separator prior to discharge to the Providence River through Outfall 001A. The Outfall 001 drainage area was increased by approximately 1.7 acres of impervious area due to the new railcar yard constructed in 2007. As a result, the quantity of storm water handled by the holding pond and oil/water separator that discharges to Outfall 001A increased slightly. Infiltration/Inflow of contaminated groundwater into the storm water collection and treatment system is not authorized by this permit and must be addressed by the permittee pursuant to Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. Outfall 001A is also permitted to discharge tank and pipe hydrostatic test water. Discharges from the tank farm and hydrostatic test water through Outfall 001A are regulated by the conditions in the permit for Outfall 001A. Outfall 001A is also permitted to discharge treated tank bottom water that is regulated by the permit conditions for Outfall 100A.

The East Side Tank Farm is used to store fuel oil, jet fuel, and diesel. Outfall 002A discharges storm water from the loading rack area, additive tank containment area, and steel ring-wall containment for Tanks 2, 3, 5, 6, 7, and 8 in the East Side Tank Farm. Storm water from the loading rack and additive tank containment areas is collected through a series of drains and pipes and directed to an oil/water separator. Treated water from the oil/water separator is discharged to a holding pond northeast of the loading rack. Storm water from the steel dike ring-wall containment areas for Tanks 2, 3, 5, 6, 7, and 8 is also pumped to the pond. The pond is used as an observation area and final treatment prior to discharging the storm water to the Providence

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River through Outfall 002A, which is located near Harbor Junction Pier. Outfall 002A is also permitted to discharge tank and pipe hydrostatic test water. Discharges through Outfall 002A are regulated by the conditions in the permit for Outfall 002A.

Outfall 003A discharges storm water from the paved parking area north of the maintenance garage (designated for empty fuel trucks). Based on a portion of a site map provided by the Narragansett Bay Commission (NBC), the parking area is graded to direct storm water to a catch basin. Storm water collected in the catch basin flows by underground piping to oil/water separator 003. Treated water from the oil/water separator is discharged to a city storm drain that discharges to the Providence River. Discharges through Outfall 003A are regulated by the conditions in the permit for Outfall 003A.

Process water, including vehicle washwater/rinsewater and garage floor washwater north of the maintenance garage, is discharged to the NBC sewer system. This discharge is permitted and regulated by NBC Permit #P3702-033-0831. Vehicle wash water travels by sheet flow to an oil/water separator. Garage floor wash water is conveyed to the oil/water separator by floor drains and piping. The garage is currently used for storage and minimal discharges would be expected. Treated wastewater from the oil/water separator is discharged to the NBC sewer system on Allens Avenue and is regulated by the conditions in the above-referenced NBC permit.

Attachment A-2 includes site location map and site plan identifying the location of ASTs, the holding ponds and oil/water separators, and other structures. Attachment A-3 includes drainage and line flow diagrams for Outfalls 001A, 002A, and 003A for estimated flow.

Explanation of Effluent Limitation Derivation and Conditions

The draft RIDES permit for Motiva Enterprises LLC, authorizing the discharge of treated storm water, includes numeric effluent limitations and requires the implementation of a Storm Water Pollution Prevention Plan (SWPPP) for additional protection of the environment. The effluent parameters in the draft permit are discussed in more detail below following the effluent limitation derivation for all four Outfalls being regulated by this permit.

Outfalls 001A, 002A, and 003A: Effluent limitations for Outfalls 001A, 002A, and 003A have been established for total suspended solids (TSS) and oil and grease. The daily maximum effluent limitation of 20 mg/l for TSS is a BPJ based limit based on the ability of bulk petroleum storage terminals to comply with this numeric limit utilizing proper BMPs and using oil/water separators and/or holding/equalization basins as the storm water treatment technology. TSS has been limited to account for the potential for petroleum hydrocarbons to adsorb or absorb to particulates and be transported with the suspended material. To address past exceedences of permitted TSS limits, fabric filter systems were installed in September and October 2006 to control outfall discharge TSS levels. The filter systems were in place on a temporary, indefinite basis while Motiva investigated the exceedences. The filters were removed in 2008 and have not been reinstalled. The daily maximum effluent limitation of 15 mg/l for oil and grease is a BPJ based limit based on American Petroleum Institute (API) oil/water separator guidelines. The draft permit limit for O&G remains unchanged at 15 mg/l, daily maximum. Performance data from this terminal for the period April 2005 through December 2009 indicate that these effluent limits can be achieved through the proper operation of a correctly sized oil/water separator, appropriate source controls, routine inspections, preventative maintenance, good housekeeping programs, and good best management practices (BMPs).

Ethanol is a fuel additive increasingly blended with gasoline as a gasoline oxygenate. Ethanol has replaced MTBE as an additive in Rhode Island. Ethanol is a clear, colorless liquid, miscible with water and many organic solvents. The storage/handling and use of ethanol as a fuel additive could lead to exposures from water that has been contaminated with ethanol from leaking storage facilities or accidental spills. Therefore, ethanol monitoring for Outfall 001A and 002A has been included in the permit since ethanol is stored in the West Side Tank Farm and is loaded into

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tanker trucks at the truck loading rack, so storm water that is discharged through the above outfalls may contain ethanol. The requirement to monitor MTBE at Outfalls 001A and 002A was added to the permit as a minimal amount of MTBE is expected to remain in the distribution system due to presence as a natural contaminant in some gasoline and use of non-dedicated transportation equipment that could have been used to transport product containing MTBE. On average, MTBE concentrations in gasoline are expected to be less than 0.5% MTBE by volume. Monthly sampling for MTBE at Outfalls 001A and 002A will be required. If the results of six (6) consecutive months of MTBE sampling demonstrate values below the method detection limits for MTBE (as defined in Part I.D.), then monitoring may be ceased at the respective outfall.

Outfalls 001A and 002A must also be monitored for the following: benzene, toluene, ethylbenzene, total xylenes, MTBE, ethanol, and sixteen (16) polynuclear aromatic hydrocarbons (PAHs). These pollutants were chosen because they are indicators used to characterize contamination from petroleum hydrocarbons stored at the site.

Outfall 100A: Effluent limitations for Outfall 100A were established for benzene, toluene, ethylbenzene, total xylenes, total BTEX, MTBE, ethanol, TPH, and sixteen polynuclear aromatic hydrocarbons (PAHs) to monitor the effectiveness of the tank bottom draw-off water carbon adsorption system submitted by Star Enterprises on September 19, 1997. The design of the carbon system was based on a typical analysis of tank water bottoms (gasoline and fuel oil) obtained from API Publication 4602.

The effluent discharge limitations for Outfall 100A were based on those for Discharge Category B for Oil Remediation Sites discharging to Class SA or SB receiving waters as shown in Part II.D.6. of the RIPDES Remediation General Permit (RGP). For the parameters that require monitoring, only benzene, toluene, ethylbenzene, Total BTEX, benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene, benzo (k) fluoranthene, chrysene, dibenzo (a,h) anthracene, indeno (1,2,3 - cd) pyrene, acenaphthene, anthracene, fluoranthene, fluorene, naphthalene, pyrene, and Total Petroleum Hydrocarbons (TPH) contain numeric effluent limitations. The remainder of the parameters are monitor only. As there are no water quality criteria or technology based limits for methyl tertiary butyl ether (MTBE) or ethanol they will be monitored only. Ethanol monitoring for Outfall 100A has been included in the permit since ethanol is the new additive in gasoline and tank bottom draw-off water from those ASTs storing gasoline is expected to contain trace amounts of ethanol. As noted above, MTBE monitoring will remain as it is expected to be present in trace amounts in gasoline.

Flow: The treatment technology for storm water runoff employed by this bulk storage petroleum terminal are oil/water separators. These devices use gravity to separate the lower density oils from water, resulting in an oil phase above the oil/water interface, and a heavier particulate (sludge) phase on the bottom of the oil/water separator. It follows that the sizing of oil/water separators is based on the following design parameters: water flow rate, density of oil to be separated, desired percentage removal of oil, and the operating temperature range. To ensure proper operation of the installed oil/water separators such that the oil and/or particulate phases are not entrained to the waterway, DEM is requiring that the release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewaters does not exceed the optimum design flow rates for the oil/water separators or cause violations of the effluent limitations specified in the permit. The design flow rates for the oil/water separators servicing Outfalls 001A, 002A, and 003A are: 1.2 MGD, 0.23 MGD, and 0.006 MGD, respectively.

Tank Bottom and Bilge Water: The bottom of many petroleum product storage tanks may contain a layer of water that has separated from the stored petroleum product due to the density difference between the product and water. As this water coalesces and then settles to the bottom of the tank, it partitions (dissolves) BTEXs and PAHs from the petroleum product. Through this process, the water selectively extracts some of these hazardous substances and may become toxic. To avoid product contamination, terminal operators drain this water layer to prevent transfer

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with the product.

Whereas storm water contacts only those hydrocarbons spilled on the ground and then only for short periods of time; tank bottom water remains in intimate proximity with petroleum derivatives for prolonged periods of time, allowing the pollutants the necessary contact time to dissolve into the aqueous phase. Storm water also is discharged from the terminal in a timely fashion to maintain maximum storage capacity within the diked areas at all times. This procedure also minimizes the contact time between petroleum product and storm water.

The DEM considers tank bottom water a "process wastewater", since it can partition soluble toxic materials from petroleum product with time. To protect the Providence River from pollutants dissolved in tank bottom and bilge water, the DEM is prohibiting the permittee from discharging any untreated tank bottom or bilge water alone or in combination with storm water or other wastewater directly from the facility. However, treated tank bottom water is permitted to be discharged through Outfall 001A by the effluent limitations and monitoring requirement for internal Outfall 100A.

Hydrostatic Test Water: To ensure safe working conditions during maintenance work periods; storage vessels (welding, new tank floors, e.g.) and/or pipe networks are rigorously cleaned (e.g. "poly brushed", "squeegee pigged") and certified as being "gas free". The vessels and/or pipe networks are then hydrostatically tested after the maintenance work is completed. Thus, hydrostatic test water discharge should contain only minimal amounts of foreign matter and/or trace amounts of hydrocarbons. As a precaution, however, the hydrostatic test water shall go through the oil/water separator (effluent) in a controlled manner to prevent exceedance of the maximum design flow rate of the separator thereby reducing any potential carryover of oil into the receiving waters.

The permittee shall notify the Office of Water Resources at least twenty-four (24) hours prior to the commencement of any proposed hydrostatic-test water discharges. Prior to testing, the interior of the tank(s) and/or piping being tested shall be cleaned and certified to be free of petroleum product. There shall be no discharge of tank and/or pipe cleaning residual/debris to either of the oil/water separators or holding ponds.

The hydrostatic test water released from the tank(s), after treatment through the oil/water separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the oil/water separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water(s). A logbook shall be kept to document the start and end of each hydrostatic test, the total flow discharged and all monitoring data.

Should any RIPDES permit discharge parameter be exceeded, the hydrostatic test water transfer shall be halted immediately followed by notification to the DEM of the exceedance.

SWPPP: Pursuant to Section 304(e) of the CWA and 40 CFR§125.103(b), best management practices (BMPs) may be expressly incorporated into a permit on a case-by-case basis where necessary to carry out Section 402(a)(1) of the CWA. The facility stores and handles pollutants listed as toxic under Section 307(a)(1) of the CWA or pollutants listed as hazardous under Section 311 of the CWA and has ancillary operations which could result in significant amounts of these pollutants reaching the Providence River. These operations include one or more of the following items from which there is or could be site runoff: materials storage, materials processing and handling, blending operations, intra-facility transfers, and loading/unloading of product. To control these activities/operations, which could contribute pollutants to waters of the United States via storm water discharges, at this facility, the permit requires this facility to develop a Storm Water Pollution Prevention Plan (SWPPP) containing BMPs appropriate for this specific facility. The BMPs should include processes, procedures, schedule of activities, prohibitions on practices, and other management practices that prevent or reduce the discharge of pollutants in storm water

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runoff.

Prohibition of Non-storm Water Discharges: This permit authorizes some non-storm water discharges. These discharges include treated effluent from firefighting activities; fire hydrant flushings; hydrostatic test water; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials have occurred; and potable water sources which include vehicle, equipment, and surface washdown waters which do not have chemicals (such as solvents, soaps, emulsifiers, and/or detergents) added. To prevent hydrocarbon and/or particulate entrainment (carry-over) from the treatment system, the permittee shall not add chemicals, soaps, detergents, solvents, emulsifiers, etc. to any fresh water wash down collection and treatment system without prior approval by the DEM.

All other non-storm water discharges including fire protection foam, either in concentrate form or as a foam diluted with water, are excluded from coverage under this permit. The DEM believes there is a significant potential for these types of discharges to be contaminated. Thus, the permittee is required to obtain a separate RIPDES permit for these non-storm water discharges or seek the necessary approval(s) from the appropriate local pretreatment authority to discharge to the sanitary sewer system.

Antibacksliding: EPA's antibacksliding provision at 40 CFR §122.44(l) prohibit the relaxation of permit limits, standards, and conditions unless the circumstances on which previous permit was based have materially and substantially changed since the time the permit was issued. Therefore, technology based effluent limitations in the draft permit must be as stringent as those in the current permit. Relaxation of these limits is only allowed when cause for permit modification is met, see 40 CFR §122.62. Effluent limits based on BPJ, water quality, and State Certification requirements must also meet the antibacksliding provisions found in Section 402(o) and 303(d)(4) of the CWA.

The circumstances at the facility have not substantially changed since the issuance of the last RIPDES permit, and therefore the limits in the draft permit are no less stringent than what are in the previous permit. Therefore, since all of the permit limits are at least as stringent as those from the previous permit, this permit satisfies the antibacksliding provisions at 40 CFR §122.44(l).

The RI DEM has determined that all permit limitations are consistent with the Rhode Island Antidegradation policy.

V. **Comment Period, Hearing Requests, and Procedures for Final Decisions**

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request

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for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. DEM Contact

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Aaron Mello
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700 x7405

7/26/10
Date


for Eric A. Beck, P.E.
Supervising Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENT A-1

DESCRIPTION OF DISCHARGES: 001A – Effluent from Oil/Water Separator: Storm Water, Groundwater Infiltration/Inflow, Hydrostatic Test Water, Treated Tank Bottom Draw-off Water
 002A – Effluent from Holding Pond: Storm Water, Hydrostatic Test Water
 003A – Effluent from Oil/Water Separator: Storm Water
 100A – Effluent from Tank Bottom Draw-off Water Treatment System²

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	OUTFALL		
	001A MAXIMUM ¹	002A MAXIMUM ¹	003A MAXIMUM ¹
FLOW (MGD)	<u>0.19</u> MGD	<u>0.0163</u> MGD	<u>0.003</u> MGD
Oil and Grease	<u><1.04</u> mg/l	<u><1.034</u> mg/l	<u><1</u> mg/l
TSS	<u><8.30</u> mg/l	<u><8.59</u> mg/l	<u><11.78</u> mg/l
Benzene	<u><10.38</u> µg/l	<u><16.73</u> µg/l	
Toluene	<u><28.3</u> µg/l	<u><45.54</u> µg/l	
Ethylbenzene	<u><7.79</u> µg/l	<u><8.08</u> µg/l	
Total Xylenes	<u><43.47</u> µg/l	<u><40.98</u> µg/l	
MTBE	<u><903.2</u> µg/l	<u><801.6</u> µg/l	
Acenaphthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Acenaphthylene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Anthracene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (a) Anthracene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (a) Pyrene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (b) Fluoranthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (ghi) Perylene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (k) Fluoranthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Chrysene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Dibenzo (a,h) Anthracene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Fluoranthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Fluorene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	

ATTACHMENT A-1 (Cont.)

Indeno (1,2,3-cd) Pyrene	<u>BDL</u> $\mu\text{g/l}$	<u>BDL</u> $\mu\text{g/l}$
Naphthalene	<u>BDL</u> $\mu\text{g/l}$	<u>BDL</u> $\mu\text{g/l}$
Phenanthrene	<u>BDL</u> $\mu\text{g/l}$	<u>BDL</u> $\mu\text{g/l}$
Pyrene	<u>BDL</u> $\mu\text{g/l}$	<u>BDL</u> $\mu\text{g/l}$
Sum of All (PAHs)	<u>BDL</u> $\mu\text{g/l}$	<u>BDL</u> $\mu\text{g/l}$

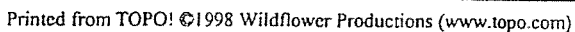
¹Data represents the mean of the daily maximum data from April 2005 through December 2009.

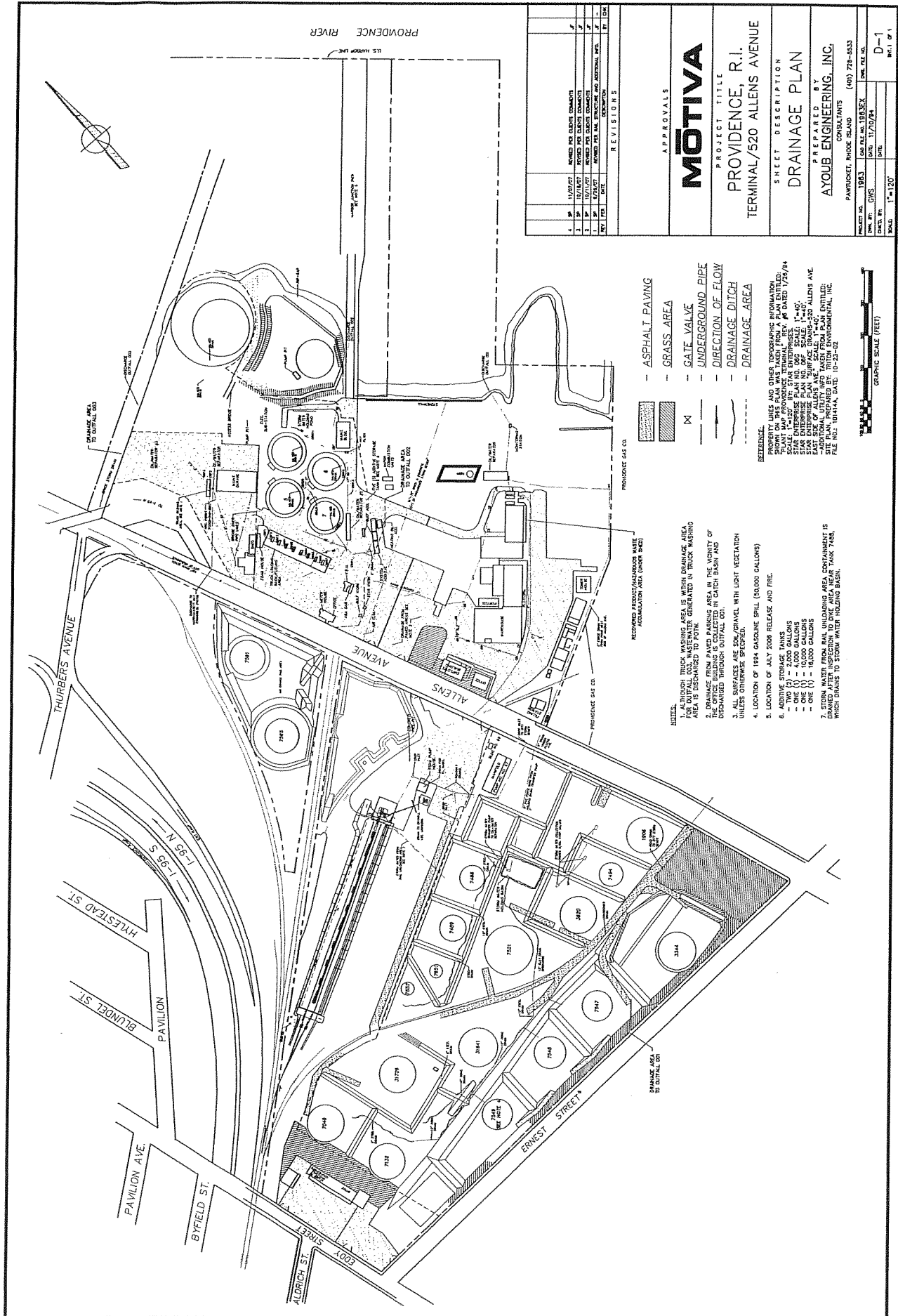
²There were no discharges from the tank bottom draw-off water treatment system (Outfall 100A) during the above timeframe.

BDL = Below Detection Limit

ATTACHMENT A-2

**Motiva Enterprises LLC – Providence Terminal
SITE LOCATION MAP & SITE DRAINAGE PLAN**

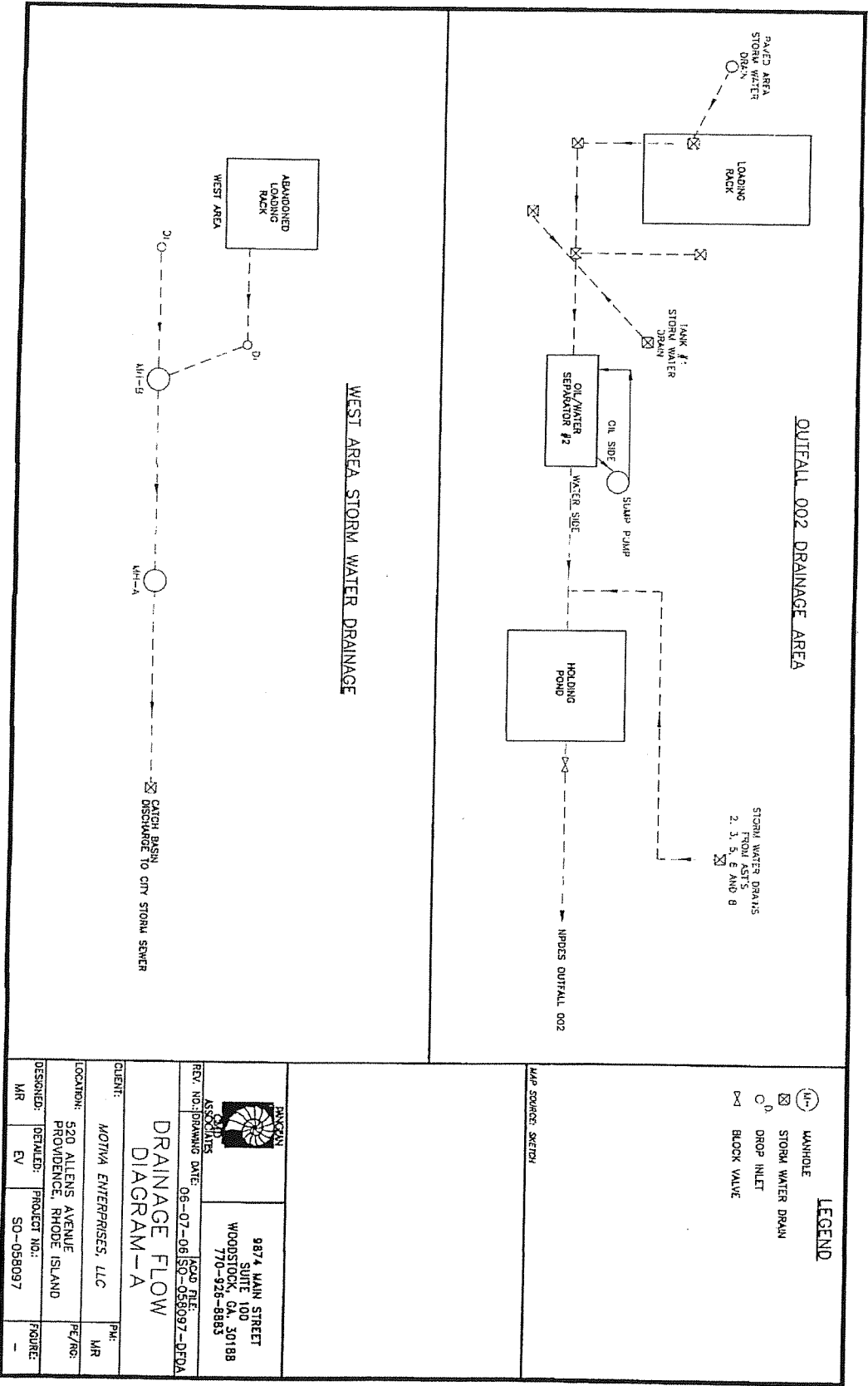


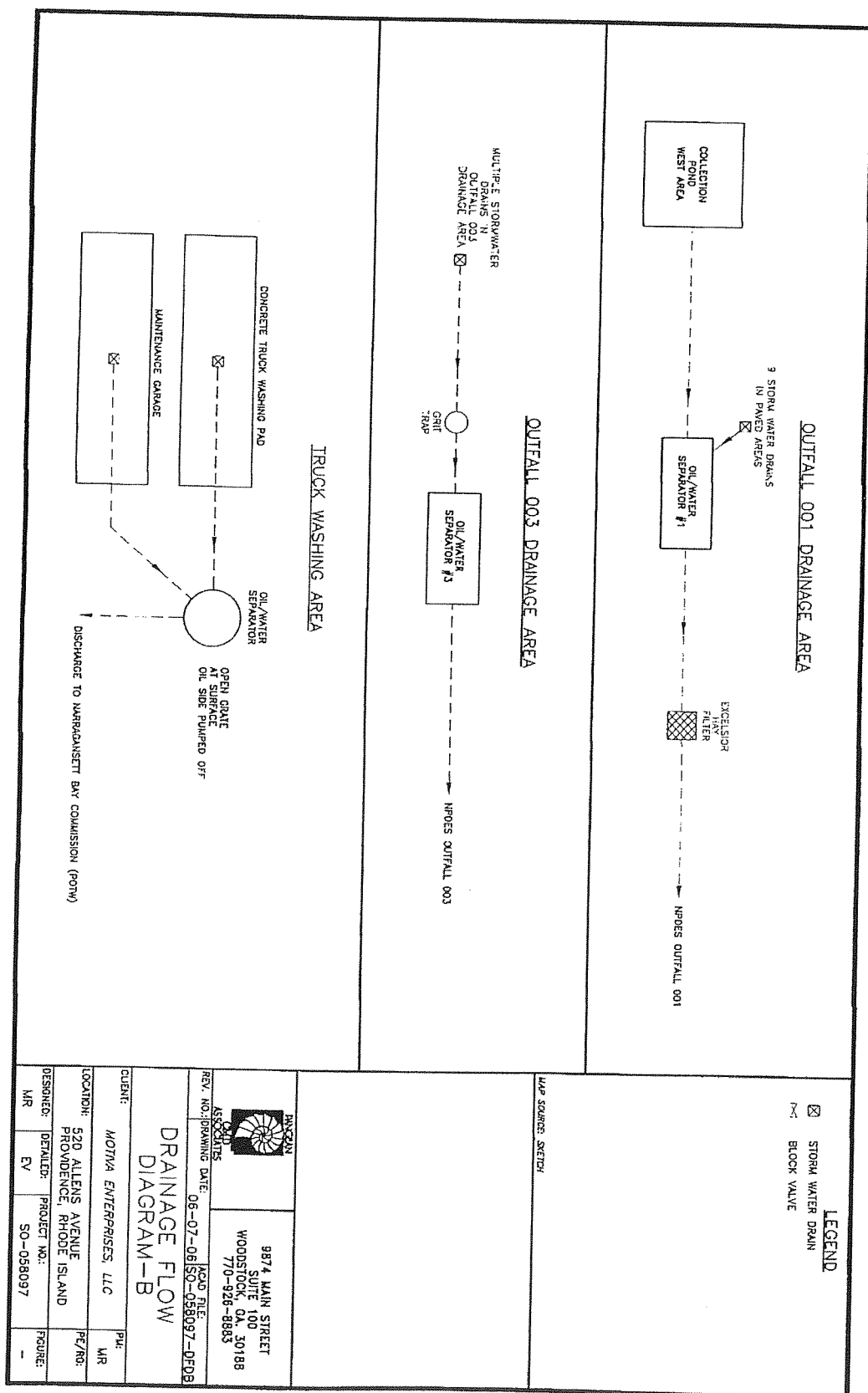


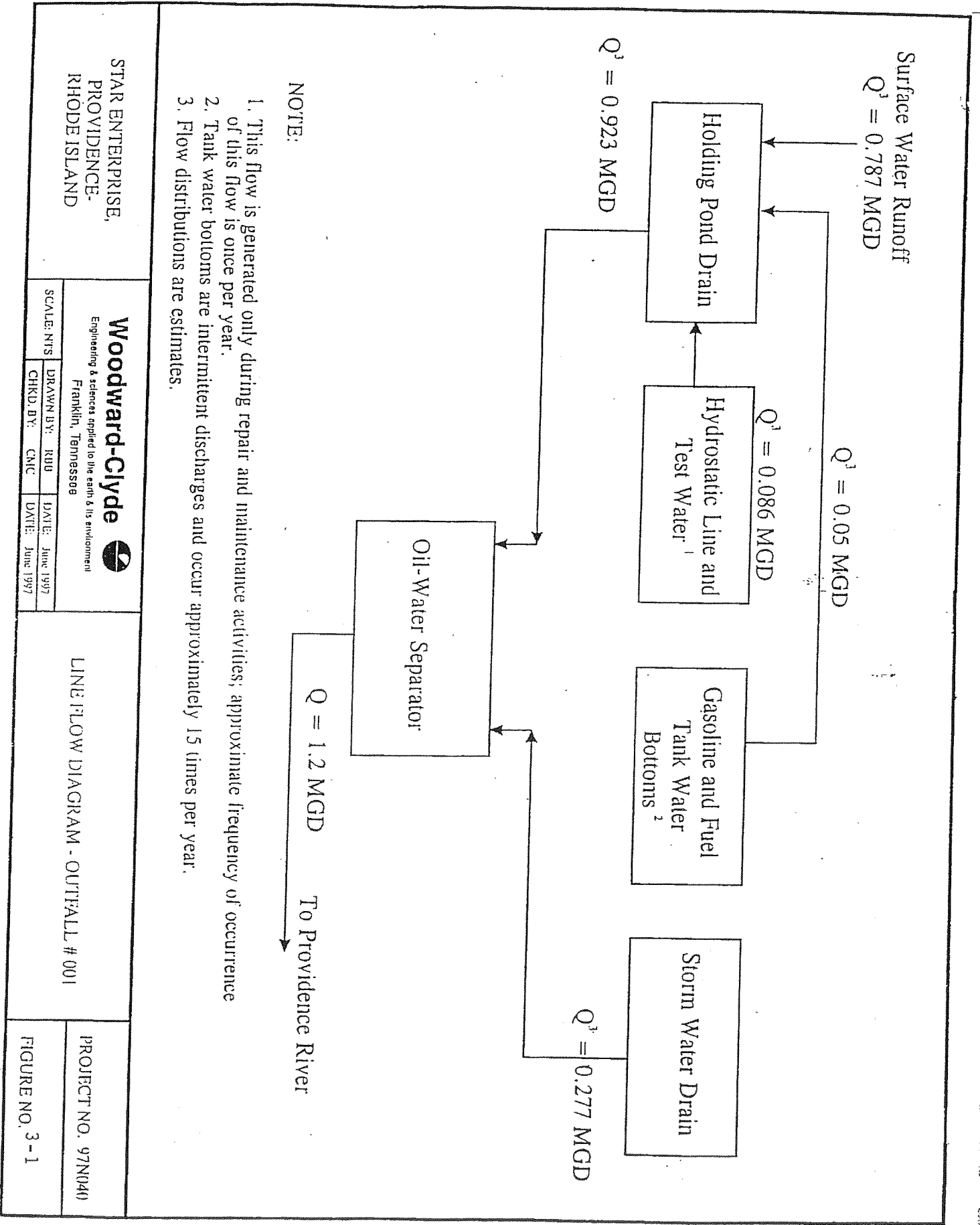
ATTACHMENT A-3

Motiva Enterprises LLC – Providence Terminal

DRAINAGE & LINE FLOW DIAGRAMS







STAR ENTERPRISE,
PROVIDENCE-
RHODE ISLAND

Woodward-Clyde



Engineering & sciences applied to the earth & its environment
Franklin, Tennessee

SCALE: NTS

DRAWN BY: RRU

DATE: June 1997

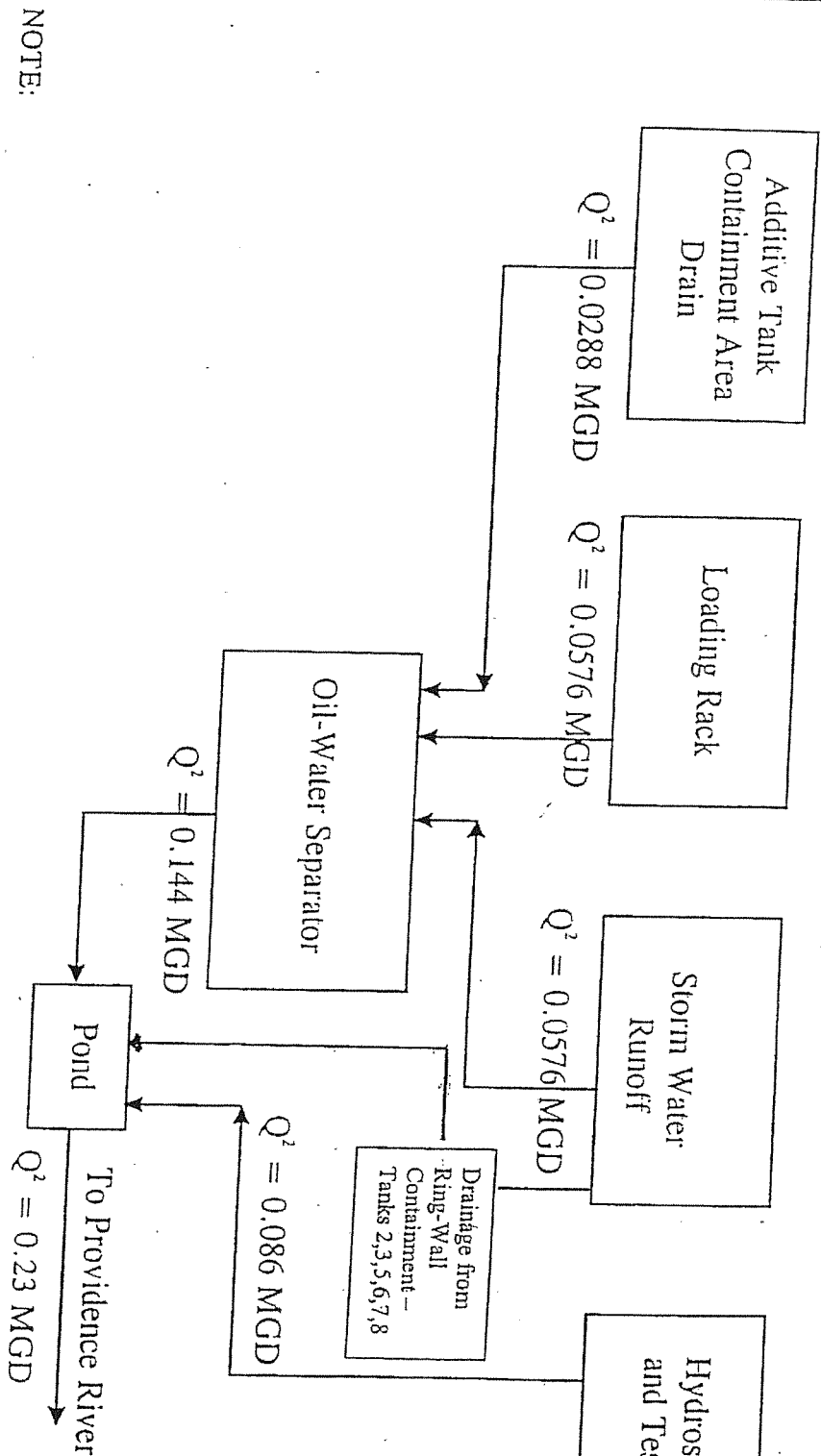
CHKD. BY: CMC

DATE: June 1997

LINE FLOW DIAGRAM - OUTFALL # 001

PROJECT NO. 97N040

FIGURE NO. 3-1



NOTE:

1. This flow is generated only during repair and maintenance activities; approximate frequency of occurrence of this flow is once per year.
2. Flow distributions are estimates.

STAR ENTERPRISE,
PROVIDENCE-
RHODE ISLAND

Woodward-Clyde



Engineering & sciences applied to the earth & its environment
Franklin, Tennessee

SCALE: NTS	DRAWN BY: RMB	DATE: June 1997
CHKD. BY: CMC		DATE: June 1997

LINE FLOW DIAGRAM - OUTFALL # 002

PROJECT NO. 97N040

FIGURE NO. 3-2